

To the Okehampton Town Council.

Annual Report of the Medical Officer of Health, 1908.

GENTLEMEN,

I have the honour of submitting my Twenty-first Annual Report as your Medical Officer of Health. In dealing with the subject matter I will take up the several points laid down in the official memorandum of the Local Government Board, covering, as they do, the ground in a comprehensive manner.

The small market town of Okehampton lies near the centre of the county, on the north-western edge of Dartmoor. The height above sea-level varies from 450 feet to 750 feet. Two rapid streams (the East and West Okement) pass through the town, joining just below. Geologically, the town lies in the Culmiferous Trough of Central Devon, stratified rocks underlying being mainly shale and slate. The lower part of the town is built on an ancient river bed, made up of water worn stones and gravel, with occasional small beds of clay.

The population at the census of 1901 was returned as 2,568. There has been an increase since then, and is now probably 2,900.

The population is employed pretty much as is usual in a small but growing market-town. A boot factory employs several hands, and a quarry worked by the London & South Western Railway finds employment for over 100 of the inhabitants.

The area of the borough is 502 acres.

House Accommodation—During recent years considerable building operations have been carried out, chiefly in new streets. The bye-laws have been satisfied, both as regards the structure of houses and sufficiency of air space around. In parts of the town, also, street widening is carried out as opportunity arises.

The surroundings of the newer houses are generally in a clean condition.

Two or three courts of old houses still remain, and isolated blocks of old cottages are met with here and there. Each year, however, is marked by demolition; and I think the time is not far distant when few of these unsatisfactory cottages will remain.

The cottage accommodation may be looked upon as very fairly adequate. The only fault is that, owing to the high price of land, and increased cost of construction, the cottages let at rents which, in many cases, necessitate either two families occupying one house, or the taking in of lodgers.

No action has been taken or needed, under the Housing of the Working Classes Act.

Water Supply.—This is derived from (1) a stream on Dartmoor, and (2) springs and sub-soil water, also from the Moor. The water from the stream is filtered before entering the reservoir. Only one or two outlying houses are supplied with well water, in each instance of good character.

The supply is sufficient for the present needs of the district, notwithstanding a good deal of waste. From periodical inspections of the gathering ground I believe the water to be free from risk of animal contamination. The water is generally of high-class organic purity, and very soft. In the Autumn, and after heavy rains, some discolouration takes place, due to peaty matter being washed in. When this is the case the water becomes acid, and has a plumbosolvent action on the lead service pipes. The matter has been discussed in previous reports. I need only add that since our new supply has been taken in from the stream, the amount of lead taken up has been distinctly less. Whether the water from the stream contains less of the organic acids, or whether these are removed by filtration to a considerable extent, or whether they are removed by oxidation during the turbulent flow of the stream, I should not like to say definitely, but I think all three factors take a part.

Although for 21 years I have been on the look-out for lead poisoning from the water, I have not yet met with a single case. This I attribute to the fact that for the greater part of the year the water does not take up lead. Short of definite lead poisoning there may be deleterious effects, but I do not think chronic kidney disease, anæmia, and abortion are more frequent here than in other parts of the country. Whether it has a slight influence on our Infantile Mortality would seem uncertain from the statistics given later.

Milk Supply.—The greater part of the milk used in the Borough is brought in from neighbouring farms, the smaller quantity is supplied by cow-keepers in the Borough. Generally, the milk is of good quality, and wholesome. More cleanliness on the part of the milkers is desirable in one or two cases.

The dairies give rise for but little complaint, and although during the past two years there has been a great improvement in the condition of most of the cow-sheds, there still remain two or three which require considerable structural alteration before they will pass muster. These, however, are to be dealt with.

The cowsheds and dairies, both within and without the Borough, are inspected by the Sanitary Inspector and myself.

From the experience of Veterinary Surgeons practising in the District, and from my own inspection of carcasses, I believe there is very little Tuberculosis amongst local cattle. This is, probably, due to their living out the greater part of the year.

Food Supply.—Inspections are frequently made, both in the slaughter houses and in the market of food offered for sale. In no case during the year has it been necessary to condemn.

Two cases of ptomaine poisoning in soldiers (neither proving fatal) who had consumed meat pies, made locally, led to an investigation by the Camp Medical Officer and myself. After a thorough examination of the bake-house where the pies were made, and of the meat from which they were made, the embargo laid on the sale was removed, and the remainder of the pies of the same batch were consumed, with no injury to the consumers.

The slaughter houses are frequently inspected, and are generally in a clean condition; structural alterations are needed in some.

Sewerage and Drainage.—The town is well sewered on modern principles, the sewers being ventilated and provided with automatic flush tanks. In certain portions of the sewers there is an accumulation of small gravel, which has been washed in from the roads. The Surveyor has instructions to have the affected areas cleaned out.

Very few complaints as regards house drains have been made during the year, but many have been rectified in recent years.

Sewage Disposal.—The sewage is, at present, treated on land by irrigation, at a distance of one mile from the town. With the increase of population that has taken place in recent years the area of land has proved quite insufficient, with the result that at times unpurified sewage has passed into the river Okement, and nuisance has been caused.

This year, however, the Council has dealt with the matter energetically. A scheme has been prepared by the Borough Surveyor for extending the Sewer about $1\frac{1}{2}$ miles further down the valley, where an ample area of land can be leased from General Holley. The site will be far from houses and public roads.

The estimated cost of the scheme is £4,300, and application is to be made to the Local Government Board for sanction.

Only a few of the older cottages have pail closets, the contents of which are utilised on gardens. No nuisance is caused as a rule.

House Refuse.—This is removed by the scavengers daily, or every two or three days.

There is still room for improvement in the method of removal. In the first place it should be done earlier in the day. A larger use of the regular galvanised ash bins, with covers, would prove advantageous. There was a little response to the circular issued by the Town Council to this effect.

At present the refuse depot is in a field off the North Road, but at a good distance. No complaint has reached me of any nuisance during the year.

As in many previous reports I would again call attention to the great advantage of each householder destroying decomposable material by placing it on the kitchen fire the last thing at night.

Nuisances.—Considerable improvement can be reported during recent years, and the town is much cleaner than it was.

The bye-laws as regards piggeries are enforced, but pig keeping in the Borough is now considerably reduced.

Stable manure, too, is more frequently removed.

The lane at the back of the Higher Villas still leaves much to be desired, although attention has been called to it time after time. A few of the adjoining householders still keep up the custom of using the locality as a dumping ground for domestic rubbish of all kinds.

Lodging Houses.—There is no common lodging house in the Borough, nor has there been for some years past.

No offensive trades are carried on.

Elementary Schools.—The girls' and infants' School is still overcrowded; this will be remedied when the New Secondary School is erected, which, I believe, is shortly to be started.

The boys' School recently erected is satisfactory, except the rough play ground.

Both the girls' and boys' School are supplied with water. The closets are provided with automatic flush tanks, which work satisfactorily.

Infectious Disease—Immediately a case of infectious disease (except Erysipelas) is notified, the house is at once visited by the Medical Officer of Health, enquiries made as to its origin, or source, directions given to prevent its spread, and, in the case of poor people, disinfectants supplied. Where necessary the schoolmaster, or mistress, is informed, and advised to look out for fresh cases.

We have no Isolation Hospital, and although in earlier reports I strongly advised that there should be some provision made for infectious diseases, I must say that my views on the necessity of providing a hospital for Scarlet Fever have undergone some modification as the result of personal experience in dealing with the disease, and the reports of towns where hospital accommodation is provided.

Disinfection of premises is carried out on the termination of cases of infectious disease, either by Sulphur Dioxide or Formaldehyde. Stress is also laid on the thorough cleansing of the rooms and the washing of all washable material. The value of free ventilation and sunlight are also impressed on the householder.

Tuberculosis.—So far this disease has not been notifiable, but by an order of the Local Government Board, which came into force on January 1st, 1909, the Poor Law Medical Officer has to notify cases which come under his notice amongst his patients under the poor Law.

In recent years premises occupied by patients suffering from Tuberculosis have been disinfected.

ZYMOTIC DISEASE.

In the Spring there was a mild and not very extensive outbreak of Whooping Cough.

A few cases of Chicken-Pox were met with in the Summer.

The following cases were notified under the Notification of Infectious Diseases' Act :

Scarlet Fever, 7

Erysipelas, 1

Scarlet Fever.—After a freedom from the disease for $2\frac{1}{2}$ years, cases cropped up in the last quarter of the year. Although careful enquiry was made as to the source of the disease, nothing very definite could be discovered. Even the method of spread was, in most cases, quite beyond discovery. The children attended different schools, and, apparently, did not mix in any way. No two infected houses received the same milk supply.

Every effort was made to trace some "hidden" case of the disease, but without effect.

As a month has now elapsed since the last notification, I hope the disease is now under control.

For the 9th year in succession no case of Diphtheria or Enteric Fever has been notified.

INFANT MORTALITY.

The following table gives the number of births and deaths under one year of age, with the chief causes of death for the period 1888 to 1908.

Year.	Births.	Deaths under One Year.	Rate per 1,000	Prematurity & Congenital Defects.	Respiratory Diseases.	Atrophy Marasmus and Debility.	Convulsions and Meningitis.	Whooping Cough.	Diarrhoea.	Measles.	Tubercle.	Accident.	All other Causes
1888	54	6	111	2		2	1					1	
1889	54	4	74		2	1			1				
1890	66	9	136		3	1	1	3					1
1891	54	6	111		2	2	2						
1892	57	8	140		4	2		1					1
1893	59	11	186	1	3	3		3			1		
1894	60	7	116		3	3							1
1895	83	7	84		1	2	1		1				2
1896	77	9	116	2	2	4	1						
1897	53	6	113	2	1	2	1						
1898	73	4	54	2		1		1					
1899	68	11	161		1	2			7	1			
1900	63	6	95	2		1	1		1				1
1901	63	8	127	2	1	1			3	1			
1902	73	10	136	2	5	1			1			1	
1903	54	2	37		1		1						
1904	67	9	134	1	5	2					1		
1905	55	11	200	5	1	1	3						1
1906	60	3	100	3		2	1						
1907	64	10	156		2	1	4					1	2
1908	81	9	111	3	3	1	1	1					

From the above table it will be noticed how greatly the Infantile Mortality fluctuates from year to year—a fluctuation due, chiefly, to the smallness of the figures.

The table shows us that the infantile mortality during the last 10 years has been slightly higher than in the first 10 years, the main increase appearing in the columns marked Prematurity and Congenital Defects and Convulsions and Meningitis. It is, perhaps, wise not to put much stress on the figures at present, but it is evidently a matter that requires watching.

Infantile Diarrhœa.—No death has occurred since 1902, and, indeed, there have been but few cases of this disease.

Of late years the influence of the common house-fly in propagating the disease has received considerable attention, and deservedly so. The presence of flies implies food for them, and after feeding on filthy material outside the house they convey poisonous matter to domestic food inside the house, and so, very probably, cause disease. The obvious moral is to keep the surroundings of houses clear from decomposing material, and to protect the food inside the house from being contaminated.

It is constantly noticed that in houses where food is kept on the table for a greater part of the day, flies are most abundant.

Factories and Workshops.—These have been inspected during the year. One tailor's workshop has been enlarged and better ventilated, and a new dressmaker's workroom has been measured up and the number of workers fixed.

I have found no serious cause for complaint during the year.

Inspections.—Periodical inspections of the various parts of the Borough have been made during the year.

Water Analysis.—The Town supply is examined from time to time, and inspections have been made of the gathering ground.

VITAL STATISTICS.

Population at Census, 1901	...	2,568.
Population (estimated) 1908	...	2,900.

It will be noticed that I estimate the population in the middle of 1908 at 2,900, agreeing with the estimated numbers for 1906 and 1907. I do not think the population has materially increased during the past three years.

Births.—There were 75 births registered during 1908 in the Borough, of which 41 were males and 34 females. In addition, 6 births (4 males and 2 females) occurred in the workhouse. The birth rate is 27·9 per 1,000, as compared with an average of 24·5 for the previous 10 years.

Deaths.—26 deaths (10 males and 16 females) were registered in the Borough.

In the Workhouse there were 11 deaths (3 males and 8 females), but 9 of these were of persons from the Rural District.

The death rate for the year (excluding the deaths of outsiders in the Workhouse, but including visitors to the town), was 9·6 per 1,000. The average of the previous 10 years was 12·9 per 1,000.

Ages at Death.—Under 1 year of age there were 9 deaths, giving an Infantile death rate of 111 per 1,000 births, as compared with 120·3 per 1,000, the previous 10 years average.

Over 65 years of age there were 6 deaths.

Causes of Death.—Zymotic disease caused only one death, that of an infant from Whooping Cough. The rate is 0·3 per 1,000. This is low, but for several years past the Zymotic death rate has been almost negligible.

Pulmonary Consumption.—There were 4 deaths registered, but 2 of these were of strangers to the District (1 from London and 1 from Liverpool) who came in the last stage of the disease.

Cancer.—There were 2 deaths from Cancer, both of the stomach.

Pneumonia.—One death in an adult and one in an infant.

Heart Disease.—There were 3 deaths.

No death was due to accident or suicide.

The Artillery Camp.—Close relations have been kept during the year with the Medical Officers in charge. Although the camp is outside the Borough the frequent communications between the two practically make us one community.

The health of the soldiers was good during the season, and there was no serious infectious disease.

With the increase of the military I think it has become necessary that a urinal should be provided for the use of the soldiers returning from the town to the camp. Doubtless the War Office would consider the matter if the Town Council pointed out the necessity.

Appended are the usual tables of the year's statistics.

I have to thank the Town Clerk (Mr. J. J. Newcombe) and the Sanitary Inspector (Mr. Worden) for much help during the year.

I remain, Gentlemen,

Your obedient servant,

EDWARD H. YOUNG, M.D., D.P.H.,

Okehampton,

Med. Officer of Health.

Jan. 15th, 1909.

To
The Medical Officer of Health
for the
Borough of Okehampton.

TOWN HALL,
OKEHAMPTON,
December, 1908.

Dear Sir,

I beg to send you herewith my General Report on Sanitary Work for the past year (1908).

Water Supply.—During the past year the water supply to the town has been satisfactory as a whole.

There were a few complaints during the dry months from occupiers of houses situated on the higher levels of the town. This was on account of temporary shortage during certain hours of the day when the consumers in the lower levels were drawing rather excessively, and not actually through any diminution in the supply at the reservoirs.

The filter beds and intake, in connection with what we call the “New Supply” from Yestor, have been regularly attended to, and the colour of the water has been very good on the whole.

During the year the Water Committee have expended about £40 or so on clearing the pipes and the collecting area of the “Old Supply,” and this is money well spent; but there is still a considerable section of pipe remaining to be done. From gaugings I have taken during the dry time I have found that we are in the satisfactory position of having a supply of water to the reservoir (from both sources) equal to over 40 gallons per head per day.

I suggest that the following works be done during the coming year by way of improvement of the water Supply System, viz. :—

- (1) The chambers of the service reservoir be cleaned.
- (2) Hydrants, or “Wash Out” Valves, be provided at the end of the mains in East Street, North Street, and Lodge Road, for the purpose of periodically clearing out the pipes.
- (3) The work in connection with the clearing of pipes on the Old Supply to be continued.
- (4) That a portion of the area inside the railings around the filter beds be cemented, to enable the men to more efficiently clean the sand.
- (5) That all the ball hydrants be thoroughly tested, and any defective ones be replaced by **valve** hydrants.
- (6) That steps be taken to prevent waste of water in the town.

Sewerage.—This has been pretty much the same as last year in regard to the Outfall Fields, and the usual attention has been given to the distribution of the Sewage and cleaning of gutters, but it has been impossible, with such a small area, to prevent overflows into the river.

The Council have for some years past had under consideration a scheme for extending the Outfall Sewer, and have completed arrangements (under a provisional agreement) with General Holley for the lease for 99 years of about 70 acres of land, known as “ Hill Lowes,” situated about $1\frac{1}{2}$ miles to the north of the present outfall area, to which it is proposed to carry the sewage of the town and dispose of the effluent over the land.

The site is a good one, being away from dwelling houses and the main roads.

I should like to mention here that the General Scheme for the drainage of the town was carried out in 1884-85 (more than 20 years ago), and that the Scheme was practically a combined system, admitting much of the surface water of the street, as well as sewage. The pipes vary in size, from 6 inch upwards, terminating with a 15 inch outfall pipe along the North Road, and discharging into the present irrigation area.

During those 20 years the population of the Borough has nearly doubled; the drains of a considerable number of houses outside the Borough have been connected to our system.

In consequence of this increase, and the unsatisfactory condition of the present irrigation area, the Council have adopted an **Outfall Extension Scheme**, in which it is proposed to lay a 21 inch diameter stoneware pipe sewer from the present field through the private lands of General Holley to the area above referred to.

In preparing the scheme I find there is an excellent gradient throughout, and the point of discharge is such that it will command practically the whole of the 70 acres if in future this is required.

It will be noticed that the proposed new sewer is to be 21 inch diameter, which is a considerable increase in size, compared with the present sewer. The Council have adopted this size in view of future extension of the Borough, and in knowledge of the fact that the whole line of the pipe is to be laid through private lands, the owner of which has, in the present instance, only asked for a small sum (fifty pounds) as compensation. The estimated cost of the scheme is £4,300.

Refuse Collection and Scavenging has been carried on in much the same way as last year by the Council's own workmen, but it does not appear to have given general satisfaction in all respects.

A special Committee is dealing with the whole question of scavenging, and it is hoped that during the coming year there will be a substantial improvement in this department.

The house refuse in many streets is collected every day, whilst in others it varies, but in no case less than twice a week where the demand for collection is made.

No less than 550 premises are affected in the collection, and there are very few instances of undue accumulation of refuse.

The question of a depot is still unsettled.

Workshops.—Bakeries and Slaughter Houses are kept under supervision, and are fairly well kept by the occupiers.

One new slaughter house is being erected which will be an improvement on the existing ones, neither of which are structurally perfect.

Cowsheds and Dairies.—The adoption of bye-laws and regulations by the Council respecting Cowsheds and Dairies have brought about a slight improvement under this head, but there is still much to be done. Periodical inspections are made, but no proceedings have been taken against the occupiers.

No samples of milk have been ordered by the Council to be taken by me.

Plans.—Twenty-one plans have been approved by the Council during the year (principally dwelling houses and shops), including one slaughter house, and one for new maternity wards at the Workhouse.

There have been no prosecutions or proceedings taken to enforce the bye-laws, and the general condition of the Borough from a sanitary point of view appears satisfactory.

I am,

Yours faithfully,

Okehampton,

FRAS. J. WORDEN.

December, 1908.

RAINFALL FOR 1908.

Taken by Major-General E. H. HOLLEY, at Oaklands.

Diameter of funnel 5 inches.
 Height of top above ground .. 1 foot.
 Height above sea level .. 500 feet.

MONTH.	Total Depth.	Greatest Fall in 24 hours.		No. of days with .01 or more recorded.
	INCHES.	INCHES.	DATE.	
JANUARY..	2.93	.77	7th	13
FEBRUARY	3.57	.98	16th	19
MARCH ..	5.04	1.00	3rd	20
APRIL ..	3.11	.63	27th	17
MAY ..	2.87	1.00	13th	14
JUNE ..	1.62	1.00	1st	6
JULY ..	2.83	1.42	16th	10
AUGUST ..	4.73	.73	26th	15
SEPTEMBER	2.59	.50	10th	14
OCTOBER ..	1.21	.38	17th	10
NOVEMBER	2.30	.40	21st	9
DECEMBER	4.41	1.03	10th	19

Total rainfall 37.21 inches.
 Day of greatest fall (1.42) .. July 16th.
 Days on which .01 or more fell, 166

Remarks by General Holley :—

“Total rainfall much below the average, in fact the lowest
 since 1871, except 1887, when it was 33.87.”

Vital Statistics of Whole District during 1908 and previous Years.

Name of District .. Okehampton Urban.

Year.	Population estimated to middle of each Year.	Births.		Total Deaths registered in the District.					Total Deaths in Public Institutions in the District.	Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District	Nett Deaths at all ages belonging to the District	
		Number.	Rate*	Under 1 Year of Age.		At all Ages		Number				Rate*	
				Number	Rate per 1000 Births registered	Number	Rate*						
1	2	3	4	5	6	7	8	9	10	11	12	13	
1898	2400	73	30.4	4	54.9	32	14.1	5	4	0	29	12.0	
1899	2450	68	27.7	11	161.7	55	22.4	20	17	0	38	15.5	
1900	2500	63	25.2	6	95.2	39	15.6	6	5	0	34	13.6	
1901	2580	63	24.4	8	127.0	39	15.1	7	5	0	34	13.1	
1902	2600	73	28.8	10	136.9	41	15.7	11	7	0	34	13.0	
1903	2600	54	20.7	2	37.0	21	8.0	5	5	0	16	6.1	
1904	2660	67	25.1	9	134.3	35	13.1	7	6	1	30	11.2	
1905	2660	55	20.6	11	200.0	47	17.6	10	7	1	41	15.3	
1906	2900	60	20.6	6	100.0	49	16.9	7	7	0	42	14.4	
1907	2900	64	22.0	10	156.0	52	17.9	9	9	0	43	14.8	
Averages for years 1898-1907.	2625	64	24.5	7.7	120.3	41	15.6	8.7	7.1	.2	34	12.9	
1908	2900	81	27.9	9	111.	37	12.7	11	9	0	28	9.6	

*Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

Area of District in Acres	Total population at all ages	..	2568
(exclusive of area covered by water)	Number of inhabited houses	..	524
.. ..	Average number of persons per house	..	4.9

At Census of 1901.

Institutions within the District receiving sick and infirm persons from outside the District—Union Workhouse.

Cases of Infectious Disease notified during the Year 1908.

Name of District .. Okehampton Urban.

Notifiable Disease.	Cases Notified in Whole District.			
	At All Ages.	At Ages—Years.		
		1 to 5	5 to 15	25 to 65
Erysipelas ..	1			1
Scarlet Fever ..	7	1	6	
Totals	8	1	6	1

Causes of, and Ages at, Death during Year 1908.

Name of District .. Okehampton Urban.

Causes of Death.	Death at the subjoined ages of Residents, whether occurring in or beyond the District							Total Deaths whether of Residents or Non-Residents in Public Institutions in the District
	All Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	
1	2	3	4	5	6	7	8	9
Whooping-cough ..	1	1						
Phthisis (Pulmonary Tuberculosis)	4			1		3		
Cancer, malignant disease	2						2	1
Bronchitis ..	4	2	1			1		1
Pneumonia ..	2	1			1			1
Premature Birth ..	2	2						
Heart Diseases	3				1	1	1	3
Acute Rheumatism ..	1					1		1
All other Causes	9	3			1	2	3	4
All causes ..	28	9	1	1	3	8	6	11

INFANTILE MORTALITY DURING THE YEAR 1908.

Deaths from stated Causes in Weeks and Months under One Year of age.

CAUSE OF DEATH.	Under 1 Wk.	2-3 Weeks	Total under 1 Month.	4-5 Months.	7-8 Months.	8-9 Months.	10-11 Months.	Total deaths under 1 Year.
All Causes { Certified .. 9 { Uncertified 0								
Whooping Cough ..						1		1
Premature Birth ..	2		2					2
Congenital Defects ..		1	1					1
Atrophy, Debility, Marasmus ..					1			1
Meningitis .. (not Tuberculous)				1				1
Bronchitis ..				1			1	2
Pneumonia ..						1		1

District of Okehampton.

Population (estimated to middle
of 1908) 2,900.

Births in the year—legitimate 60. Deaths in the year—legitimate infants 7
 „ „ illegitimate 21. „ „ illegitimate „ 2

Deaths from all Causes at all Ages 37.

Annual Report of the Medical Officer of Health, for the Year 1908, for the
Borough of Okehampton, on the administration of the Factory and Work-
shop Act, 1901, in connection with

Factories, Workshops, Workplaces and Homework.

1. INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of
Nuisances.

Premises.	Number of Inspections.
FACTORIES (Including Factory Laundries) .. WORKSHOPS (Including Workshop Laundries)	2 20
Total	22

2. DEFECTS FOUND.

Particulars.	Number of Defects.	
	Found.	Remedied.
Want of Ventilation ..	1	1

3. REGISTERED WORKSHOPS **14.**